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With Assurances to "Little Science"

Director Says NSF Must Respond to New Conditions

NSF Director Walter Massey met with several reporters on September 18, the day following the first meeting of the Commission on the Future of the National Science Foundation. Following are excerpts of the conversation with Massey, transcribed and edited by SGR.

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Q. *It was frequently said during the meeting [of the Commission] that the troops out there, the grantees, are very nervous about this study of the future of NSF.*

Massey. I've certainly heard that from a number of people. I can understand it in people who haven't either read carefully what I've said or had a chance to hear me explain exactly what we're trying to do. It could cause some nervousness if they think we're trying to really change the Foundation in a more fundamental way than I've talked about.

Q. *The trend in the Foundation, starting under Erich Bloch [NSF Director, 1984-90], has been toward much larger activities and away from the tradition of $100,000 for a professor and two graduate students. A lot of people, oldtimers, look upon the Foundation as being that kind of institution.*

Massey. I've also heard this before. NSF really hasn't been like that, if you look at the grants and the percentage of grants still given to small groups—the prototypical $100,000, which has gone down to less than $90,000, I should say now. But it is true there have been new activities started, but fortunately, during Erich's period, there was growth to allow for those new things.

Q. *Has the share that goes to solo researchers or small groups remained the same or grown?*

Massey. It's remained about the same. It depends on the programs, whether it's two-thirds or 75 percent in different areas. That's changed a little. But there was a percentage drop because of facilities, not because of centers and activities like that. We built the Green Bank [W.Va.] telescope. That was a big-ticket item. We started LIGO [Laser Interferometer Gravity Wave Observatory], the telescopes. So, it's actually these new facilities coming along that makes the share of the small grants go down.

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New England Journal Cuts Remarks On Gallo in Dingell Lecture Text—P.6

Informed-Consent Rule Violated

UCLA Schizophrenia Project Draws Two Federal Probes

Two federal offices are conducting inquiries into a UCLA research project in which schizophrenic patients were successfully treated and then withdrawn from medication as part of a study of schizophrenic relapse. The father of a patient in the project accuses UCLA of biomedical mayhem in the guise of research, and even as the inquiries proceed, a federal official has ordered UCLA to clarify the risks of the project in its informed-consent documents.

SGR has learned that the inquiries were undertaken after Bob Aller, a Los Angeles film maker, charged that the risks were not disclosed to enrollees, and that his son's condition seriously deteriorated after his medication, Prolixin (flup-

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In Brief

With Science Subcommittee Chairman Rick Boucher (D-Va.) at the helm, the House Science, Space, and Technology Committee launched a year-long series of hearings on national science policy on September 24. The scope of the hearings is spelled out in *Report of the Task Force on the Health of Research* (19 pp.) and *Setting Priorities in Science* (265 pp.), both available without charge from: Science, Space, and Technology Committee, Press Office, House of Representatives, 2320 Rayburn, Washington, DC 20515; tel. 202/225-3359.

R&D mega-projects did well in Congress this year, despite a record volume of hostile speeches and a temporary House decision to kill the Superconducting Super Collider and slash the Space Station budget. When the final returns were counted, however, their appropriations were close to the original White House requests. The most useless venture in the big-project inventory, the Strategic Defense Initiative, took a whacking, but even so, it emerged with over $3 billion. The secret of the megas success: contracts spread across the land, lots of jobs, and strong Washington lobbies.

The National Academy of Sciences is heading for another one-candidate presidential election, a custom in disrepute around the world, but standard practice at the honorary pinnacle of science. Chosen by a nominating committee and endorsed by the NAS Council: Bruce Alberts, Professor of Biochemistry and Biophysics, UC San Francisco. Fifty members can put up a petition candidate, but that's doubful. Meanwhile, Harold Liebowitz, the insurgent candidate who nearly won the presidency of the National Academy of Engineering last year, tells SGR he's mobilizing for another run.

. . . Scientists Fail to Address the Issues, Massey Says

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Q. *But "little science" is safe at NSF?*

Massey. Yeah. My premise in all of this—this thing is very difficult to convey—is that the reason I think NSF can do other things, perhaps more successfully than some other entities, is because of the strength we have now; because of our ties to the academic research community; because of the way we involve the community in setting our priorities and determining programs, and the access we have to the most creative scientists and engineers in the country. If we can shape our programs, with their involvement, to engage that community in thinking about these issues in a broader way, I think that has a chance to be successful. So, obviously, it doesn't make sense to try to damage the base, which, if you believe as I do, will be necessary to do anything.

Q. *People who are now getting the grants feel that the new initiatives put them are risk. They see anything new as a threat. So, why would they want to come on board to any kind of new project? They're naturally reluctant.*

Massey. Exactly. And that's where I need your help [laughter].

Q. *You must be desperate.*

Massey. I want you to help me at least explain what I'm saying. My frustration, or part of it, is just what you're saying. The anxiety, the nervousness, is such that people just won't engage the issue. If we can get the community to engage the issues, then we can discuss them. We have a Commission, we have a process, and we can develop it. I don't know if I have all of this right. I may have it wrong. I believe what I'm saying, but the only way to test that is to get people involved who would actually have to do things. I'm trying to bring them along to engage in this dialog. Because, if we don't do that, it won't work. We can't design programs here in this agency. Anything we do specifically in terms of programs would have to come from those same people we're talking about.

Q. *But there is a feeling abroad that the decision has already been made, that it's irrevocable.*

Massey. I know, but that's not true, though, that's not true, it's just not true. We can say that over and over. The proof of that will just have to be in the process.

Q. *The decision on the way NSF is going? The move toward more applied research?*

Massey. Well, you know who's on our [National Science] Board [presidentially appointed policymaking body for NSF]. You can interview them. If you think I can buffalo 24 independent-minded people like that, plus the Commission, plus Congress and the Senate, then I'm in the wrong job.

Q. *The pressures from Congress are for more applied research. They've written it into your Appropriations reports.*

Massey. I wouldn't say it's for more applied research. I wouldn't cast it that way. But I think you're right about Congressional concerns. You can see it in both Mr. Brown's report [*Report of the Task Force on the Health of Research*, convened by Chairman George Brown of the House Science, Space, and Technology Committee] and Senator Mikulski's [NSF FY 1993 Appropriation Report]. They're certainly urging the Foundation and all of American science to look at these issues [of research and economic competitiveness] broadly. But I wouldn't say the pressure is to do more applied research.

Q. *Your budget for the new fiscal year [starting October 1] will be either flat or close to it, barring a miracle. At the same time, you are planning to move into some activities that don't exist at present. Where is the money to come from?*

Massey. We're speaking of a long-range plan.

Q. *For the longrange, it looks as though growth can't be counted on.*

Massey. I don't know that. It is flat this year. We've said to ourselves, and I've said to the Board, that I don't think our long-range strategic thinking ought to be completely constrained by this year's budget. I really think we'd tie ourselves down if we did that. But that is a problem. It's a fine line we're walking. We're having to deal with the current budgetary situation, which is very constrained, but we're in an environment where I think it would be irresponsible not to think for the long term and to lay out long-term issues.

Q. *A large part of the Foundation's constituency consists of graduate students and researchers at the beginning of their careers. Yet the Commission on the Future of NSF—I don't know their ages, but I didn't see any youngsters there.*

Massey. You're right. We talked about that. And we thought we'd get their input in other ways. We're either going to convene in panels, or in some other special efforts, our PYIs [Presidential Young Investigators] and other young investigators. We thought about it and we just opted for another way of getting that input, because what we wanted from this Commission was experience on these issues, people who have been through the whole thing.

Q. *How would you go about dispelling this mood of*

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Editor and Publisher
Daniel S. Greenberg

Associate Publisher
Wanda J. Reif

Circulation Manager
Glen D. Grant

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. . . Urges Community to Listen and Then Respond

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disappointment and despondency out there in the scientific community? I hear there's a great deal of anger about the presumed direction of the NSF.

Massey. One of the things that used to concern me about faculty meetings, especially when I was a dean, is that scholars and researchers don't always view issues that affect them with the same kind of intellectual engagement that they bring to their work. Now all I can say to the scientific community is: Why don't you first find out what's going on? It seems to me that's the first step in understanding any phenomenon—to get the facts. Read what I've said. Listen. I'm speaking to other people and audiences. You today, you will report this. Ask questions. We have a special e-mail line people can call in on [NSBCOMM@NSF.GOV (Internet) or NSBCOMM@NSF (Bitnet)]. All the ADs [Assistant Directors] will be going out, giving talks on the issue. And then engage in the issues.

I'm willing to be shown I'm wrong. If the Commission or the community comes back and says, "No, Walter, you have it all wrong. You haven't correctly assessed the environment. Or, even if you have, you haven't correctly assessed the role NSF ought to play, for these reasons"—I'm not an ideologue. I'm not wedded to this. So, I'm trying to provoke debate. The fact that people are upset doesn't bother me. The fact that people are concerned doesn't bother me. These are serious issues. And I want people to treat them seriously.

Q. *You stated three options in your "Discussion Paper on the Future of NSF" [SGR September 1]. But you made clear which one you prefer.*

Massey. Exactly.

Q. *The first option would be a continuation of the traditional role of the Foundation as what you referred to as "a small agency." A lot of people would like to see it stay that way and let NIST [the National Institute for Standards and Technology] or other agencies take over responsibility for saving the economy. Why can't NSF remain the home of small-scale basic research?*

Massey. Those two statements are not antithetical. I'm saying it will, in my option, remain the home of small-scale basic research and it will use that base to contribute in other

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Options for NSF Change and an Outline of Strategy

Two documents are central to the current deliberations on recasting the role and priorities of the National Science Foundation: *Discussion Paper on the Future of NSF*, 6 pp., by Director Walter Massey, dated August 14, addressed to the National Science Board, NSF's board of directors, and a 4-page paper titled *Working Draft: National Science Foundation Long-Range Strategic Themes*, dated September 14, prepared by NSF staff.

The Massey paper proceeds from the premise that with the end of the Cold War, national security is keyed to economic competitiveness, of which research and intellectual prowess in general are crucial components. "NSF," he states, "is uniquely charged with fueling the growth of an idea-driven society," adding that "It may be time for the Foundation to consider building on its success in supporting research ideas by accepting a major role in fostering the links between research and technology."

Listing options for the NSF of the future, Massey dismisses (1) more of the same and (2) "marginal and exploratory ventures in other areas."

"A third possibility, one that I prefer," he states, "is to build on our traditional mission and exercise new leadership across a broader spectrum of research areas. NSF would adopt an expanded portfolio of programs that would be integrated with ongoing activities and closely aligned with industry and other government agencies."

In the new NSF, he continued, "The intellectual boundaries between disciplines and types of research would be lowered and made more permeable." NSF "would encourage increased interaction" among academic and industrial organizations and all levels of government. In addition, NSF's education and human-resources activities "would be integrated and expanded into all aspects of research and would link industry, colleges and universities, two-year colleges, and technical institutes, and precollege students and teachers." Finally, in an expanded role as spokesman for science, "NSF would articulate and demonstrate in a more comprehensive manner the outcomes and benefits of public investments in research and education."

The draft of *Long-Range Strategic Themes* runs along the same lines, stating that "As NSF looks to the future, it recognizes the need for science to make more direct contributions to the national welfare."

"While maintaining support for fundamental research in core disciplines," it continues, "NSF will encourage researchers to seek intellectual integration among fields of science, between teaching and research, and between basic research and practical applications."

It goes on: "NSF will join with the private sector and the academic community to help ensure that broader social and economic benefits result from academic science and engineering activities. NSF will also support closer interaction among researchers and educators, create opportunities for broader participation in research, and promote more rapid diffusion of educational innovations."

Copies of *Discussion Paper on the Future of NSF* and *Working Draft: National Science Foundation Long-Range Strategic Themes* are available without charge from: National Science Board, 1800 G St. NW, Washington, DC 20550; tel. 202/357-9582.

. . . Cites Opportunities for New Ties With Industry

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ways. The first option *is* an option. But when I wrote the paper, I didn't want to be coy about it. I wanted people to know my position, so that when we engaged in this discussion, they would know my views on it.

Q. *The track record of agencies that try to maintain big projects and small projects is that the mega-projects, like the Super Collider and the Space Station, develop political constituencies that assure them first call on the budget.*

Massey. You're confusing too many things. Sorry. But you keep saying "applied research," as if that's the opposite pole from what we're doing. And now you say "mega-projects," as if somehow we're going into mega-projects. I've not said anything about either of those. What I've said is that we ought to be growing on our own to build more bridges between science and technology, because I think they're close anyway. But to make it a more focused part of our planning, a conscious part of our program, to build more bridges between academia and industry. And that can be done in small ways.

One of the things, for example, that I have in mind would be programs that would allow students to do research for their theses in industry. That's not big science, it's not mega-projects. We do some of it now. But it's not an integrated part of our planning. So, I see a whole spectrum of possibilities. I can't enumerate them, because I don't know them. And that's where the community would come in. If people came to the point to say yes, I think these are good ideas, then, as the Foundation usually does, we would say, propose from your experience some things you think would work and make sense that are consistent with what we can do. We aren't to that point yet.

Q. *Have you received any letters or e-mail of support from the community?*

Massey. Whenever I sit down with groups, even physicists [laughter], and say what I'm saying, they say, "Well, I may disagree with you, but, okay, I see what you're saying. And I think you might be wrong, Walter, but you have a point. It's something we have to think about." And that's all I want right now.

Q. *It looks like this is going to be the first year in a long time that the Foundation didn't get a budget increase. Was this because of the generally tight budget or is there something more fundamental there?*

Massey. I've asked that myself, and all of the feedback I got from the Hill is that it's two things—the budget crisis, period, and the fact that it's an election year and therefore there are many other larger political issues that are determining the direction of the budget. And the Foundation—we're still a small agency—just happens to be caught in that. I've asked that because I wanted to know whether there are views in Congress about our performance or our directions which would cause them not to support us. And I haven't been told that there are.

Q. *If there is a change of Administration, would you tender a resignation?*

Massey. No.

Q. *You have a six-year appointment, and—*

Massey. Right. I don't think a Director of NSF has ever done that [resigned as a result of change of administration].

Q. *There was an article in* The Scientist *[September 14] suggesting that [NIH Director] Bernadine Healy wouldn't be retained in a Clinton Administration, that she's got NIH more involved with political issues than in the past. She serves at the pleasure of the President. She, too, has been concerned with the country's competitiveness problems. Do these issues make your agencies more politically vulnerable?*

Massey. I think that's a risk. But I don't think it's just now. I think Erich [Bloch] and the Board for the last five years have made this agency a much more central player in all of these national issues. So, for however it might be judged in history, it's not something I started.

Q. *Does that make your job harder if a Democratic Administration comes in and they feel you've been following policies that were endorsed by a Republican Administration?*

Massey. It's hard for me to know. I'm relatively new at this.

Q. *The NSF Strategic Plan sounds more Clinton than Bush.*

Massey. It came out of our thinking here. One of the really nice things about this job is that I've not been involved in any partisan issues, and people really respect that, in Congress and the Administration. So far it just hasn't happened.

Science Group Backs Clinton

A heavyweight science contingent in support of Bill Clinton is about to go public, with Marvin Goldberger, former head of Caltech and the Institute for Advanced Study at Princeton, as Chairman, and Nobel Laureate Leon Lederman and MIT Professor Sheila Widnall as co-Chairs.

Titled the Council of Scientists and Engineers for Clinton-Gore, it is the descendent of similar election-campaign organizations that have blossomed on the Democratic side in recent decades. There is no sign of a Republican counterpart, which has usually been the case in past elections.

One of the organizers of the Council is an old Washington hand, Ellis Mottur, until recently on the staff of Senator Edward Kennedy's Labor and Human Resources Committee. Mottur has been at Clinton-Gore headquarters in Little Rock since August, bearing the title of Director of Business and High-Tech Constituencies, which includes science, he told SGR. Council members include: Lewis Branscomb, Harold Brown, Richard Atkinson, John Deutch, Charles Townes, Murray Gell-Man, Paul Ehrlich, Philip Anderson.

. . . Records Show Decline After Treatment Stopped

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henazine decanoate), was discontinued. He also charges that UCLA altered his son's psychiatric records after he protested his treatment. Another patient in the UCLA study, Aller says, committed suicide after his medication was withdrawn. Aller argues that it had been previously reported in the psychiatric literature that patients who resume medication following a schizophrenic relapse often fail to regain their previous level of function.

The allegations arise from a project that the National Institute of Mental Health has supported since 1982 at the University of California, Los Angeles, Neuropsychiatric Institute, with Dr. Keith Nuechterlein as principal investigator. The research protocol submitted by Nuechterlein acknowledges the risk of "clinical relapse or psychotic exacerbation in at least some of our patient subjects."

But it adds that "since most of our patients have been requesting drug withdrawal for months, and since our knowledge as to which acute schizophrenic patients will relapse following drug withdrawal is very meager, we feel this risk is justified, especially in view of the risk of tardive dyskinesia [motion disabilities] with longterm antipsychotic use."

At age 24, Aller's son was enrolled as a research subject at UCLA in March 1988 following a diagnosis of schizophrenia. The Institute's consent document signed by the son states, "If I do show a significant return of symptoms, I understand that the clinic staff will use active medication again to improve my condition." It adds, "I understand that my condition may improve, worsen, or remain unchanged from participation in this study."

Aller told SGR that he encouraged his son to enroll "because we were happy to be at a place that has a reputation like UCLA."

Medical records indicate that the son responded well to treatment and returned to college. But, according to the father, after medication was discontinued in June 1989, in accordance with the project's protocol, the symptoms returned. When he expressed concern to the physicians, Aller said, "They said, 'Wait, it could be temporary.' "

Treatment was not sought elsewhere, Aller told SGR, because his son had become attached to his physicians at UCLA and others associated with the program. "They were his support group," Aller said.

UCLA's handwritten medical records on the case document a decline in the patient's condition following withdrawal of medication, noting, in June 1990, "an exacerbation of his symptoms during the last few weeks." The note adds that the patient "has been unable to keep up with his school work." A week later, the UCLA patient record reports "delusions of others not being human." Aller says he repeatedly pleaded for a resumption of medication, but was told that his son had refused to take the drugs.

Medication was resumed in May 1991, Aller says, but his son "did not return to his former level of function," though he has since re-enrolled in school.

Aller says he got a run-around from UCLA officials when he complained about his son's treatment, and that medical records they eventually provided to him in accordance with California law had been "whited out" in various places and rewritten.

Determined and aggrieved, Aller has assembled a thick dossier on the UCLA project and taken the case to Washington. He contends, among other things, that the previously published psychiatric literature on his son's condition documents a high incidence of relapse and serious consequences following withdrawal of medication. Nonetheless, he charges, the UCLA researchers concealed the risks from patients and went ahead with the planned program of medication followed by withdrawal of the drug.

The inquiries into the UCLA case are being conducted by the NIH Office for Protection from Research Risks (OPRR) and the Office of Research Integrity (ORI), in the Department of Health and Human Services. But even as investigators look into the charges, OPRR has ordered UCLA to revise the informed-consent documents for the project.

The OPRR directive, in a letter dated August 19 to Richard Sisson, UCLA Senior Vice Chancellor for Academic Affairs, called for an "expanded" consent form to provide "more detailed information regarding the risks associated with lengthy withdrawal of antipsychotic medication, including information regarding the likely rates of exacerbation or relapse and the consequences thereof."

The letter to UCLA, by J. Thomas Puglisi, Acting Chief of the OPRR Compliance Oversight Branch, stated that "you indicated that much of the information [concerning risks] has been presented orally to subjects up to this time." Puglisi noted, however, that regulations of the Department of Health and Human Services specify that risk data "be embodied in the *written* Informed Consent Document."

Puglisi also wrote to UCLA that "No new subjects should be enrolled in this research until revised Informed Consent Documents have been reviewed and approved by the UCLA Institutional Review Board (IRB)."

Aller ridicules that directive, pointing out that the consent documents that are now deemed defective bear the approval of the UCLA review board and have been in effect for at least a decade.

Meanwhile, OPRR says its inquiry is still in progress and therefore cannot be commented on. At the Office of Research Integrity, the case is also reported to be in the "inquiry" stage, the level below an "investigation."

Aller compares the case to the infamous Tuskegee experiment, in which syphilis patients were deliberately untreated in a study of the natural course of the disease. In a similar fashion, he contends, the UCLA procedures involve "the practice of observing and studying patients while they are being harmed without fully informing patients and family of the projected outcome."—DSG

Medical Editor Axes Dingell's Remarks About Gallo

Two dreadnoughts accustomed to having their own way, *The New England Journal of Medicine* (NEJM) and Rep. John Dingell (D-Mich.), have been scrapping over the journal's insistence on deleting comments about the Gallo case from the published version of a lecture, "Misconduct in Medical Research," delivered last May by Dingell.

The Congressional flagellator of scientific ethics and the nation's leading medical journal are in dispute as a result of an invitation for Dingell to deliver the Shattuck Lecture at the annual meeting of the Massachusetts Medical Society, publisher of the NEJM. Jerome B. Kassirer, Editor of the *Journal*, nominated Dingell for the lecture, established in 1890, and usually published in the NEJM; and, ironically, it is Kassirer who insists on sanitizing Dingell's text, though the editor, in a post-lecture letter to Dingell, commented that "Your point of view, as espoused in the manuscript, is far more moderate than others have painted it...."

In the lecture, Dingell repeated his often-expressed assertion that the scientific community is reluctant to police itself against scientific misconduct, which, he said, robs the taxpayers and deprives legitimate scientists of support. Numerous incidents of scientific fabrication and plagiarism have been spotlighted by his Subcommittee on Oversight and Investigations, Dingell continued. In response, he said, his motives "have been misrepresented, particularly by persons who have everything to lose from the truth.... For a time, we were excoriated as a band of philistines incapable of understanding science and as a troop of inquisitors engaged in a senseless witch hunt." Dingell then summarized some of the more pungent investigations of recent times, including that of Robert C. Gallo, the NIH virologist, whose claimed roles in the identification of the AIDS virus and the development of the AIDS blood test have spawned nasty disputes and a long-running federal investigation.

About Gallo, the following is verbatim from Dingell's Shattuck Lecture text:

Finally, there is the matter of Dr. Robert C. Gallo, the NIH's world-famous AIDS researcher. Because the Subcommittee has not yet completed its investigation, I cannot tell you what our conclusion will be. I can say, however, that one of the things that puzzles and troubles us is the large number of unusual misunderstandings and coincidences in which Dr. Gallo appears to be entangled.

After Dr. Zaki Salahuddin, one of his longtime laboratory scientists, was convicted of a felony in connection with his activities at Dr. Gallo's laboratory, Dr. Gallo explained that he had been unaware of Dr. Salahuddin's activities. In short order, Dr. Prem Sarin, Dr. Gallo's Deputy Laboratory Chief, was indicted for activities unrelated to those of Dr. Salahuddin but also stemming from work at the laboratory. Dr. Gallo explained that he knew nothing of his Deputy Laboratory Chief's misconduct and that these two separate criminal cases involving his laboratory were unfortunate coincidences.

Then we learned that two human subjects described in an article coauthored in *The Lancet* by Dr. Gallo and French researcher Dr. Daniel Zagury had died, but that Dr. Gallo failed to report these deaths to NIH as required by grant regulations and erroneously reported in *The Lancet* that he had observed no adverse reactions in the human subjects. Dr. Gallo again had an explanation. He explained that the statement in *The Lancet* was an inadvertent error, and his failure to comply with NIH procedure was a result of his unfamiliarity with the regulations, despite some 20 years of employment at NIH.

More recently, in the controversy over the AIDS blood test, Dr. Gallo first stated that the virus he used was definitely different from that used by the competing French team. When genetic sequencing proved that the viruses were identical, Dr. Gallo suggested that the French must have taken his virus. When that claim was challenged, Dr. Gallo explained that there must have been an inadvertent contamination in his laboratory. Meanwhile, there were also questions about the cell-line in which Dr. Gallo grew his viruses. Initially, Dr. Gallo seemed to suggest that the cell-line was his own development. It eventually emerged that the cell-line belonged to Dr. Adi Gazdar, a researcher at another NIH institute. Dr. Gallo explained that this was a misunderstanding, that he never intended to deprive Dr. Gazdar of credit, but merely renamed the cell-line for convenience.

This is a deeply troubling case. An eminent scientist who heads one of the most important laboratories in the world is embroiled in so many instances of inadvertent errors, miscommunications, and unfortunate coincidences. We understand that the NIH itself receives millions of dollars each year in royalties from the blood test, but that should be no impediment to NIH's objectively assisting Dr. Gallo in resolving his difficulties.

In a letter to Dingell dated June 1 concerning publication of the lecture, NEJM Editor Kassirer stated, "As I mentioned to you immediately after the lecture, I have taken the liberty of deleting your comments about Robert Gallo. First, in all the others [cases described in the lecture], fraudulent material has been retracted in print. Second, the principal allegations against Gallo are based on apparent coincidences, misunderstandings, and inadvertent errors. While these allegations embellish the case you make, they have not been shown to constitute overt fraud. Third, the Gallo case has been exhaustively covered in *Science*, and repetition of these allegations seems superfluous." Referring to institutions criticized by Dingell in his discussion of scientific misconduct, Kassirer added: "In a spirit of fairness, I will be offering officials at Harvard, Tufts, MIT, Pittsburgh, and NIH an opportunity to submit short replies in the correspondence section that will appear in the same issue as your lecture."

Responding to Kassirer in a letter dated August 14, Dingell stated: "My understanding is that the printed lecture is supposed to reflect the lecture actually delivered, with only minor changes....I am concerned that your comments ... relative to the Gallo issue may reflect a misunderstanding of the facts and circumstances. For example, your statement that 'the principal allegations against Gallo are based on apparent coincidences, misunderstandings, and inadvertent errors' is erroneous; at most, one might say that 'the princi-

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. . . Kassirer Says Lawyers Advised Him to Edit Dingell

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pal allegations against Gallo are based on what Gallo *claims* are coincidences, misunderstandings, and inadvertent errors.' I have made some minor adjustments in the text to clarify the distinction," Dingell wrote, and then proceeded to another matter.

"Additionally," Dingell wrote, "your point that 'in all the others fraudulent material has been retracted in print' also appears to reflect a misimpression. In the Cleveland Clinic case [discussed in Dingell's lecture], no retraction has ever been printed, and in the [David] Baltimore case, Dr. Baltimore has recently expressed an intention to retract his retraction. On the other hand, there has been at least one significant printed retraction in the Gallo case. Dr. Gallo has retracted in print his initially vehement claim that his virus was independent of the Institut Pasteur's (although he continues to deny any wrongful intent in his appropriation of the Pasteur virus)."

Dingell conceded Kassirer's prerogative to edit the lecture, but noted that "I hope you would understand that I would want to reserve the option of writing a letter to the editor or otherwise expressing my disagreement." Noting Kassirer's invitation for responses to the published lecture to appear in the same issue, Dingell wrote that "my understanding is that the *Journal's* normal practice is to publish an article and then at some future point to publish responses together with the author's reply to the critiques."

In a response dated September 1, "enclosing our final revision," Kassirer stated, "you will note that I have deleted the material about Gallo as I described in my first letter. Because I had concerns about this part of your address from the beginning, I submitted it to the Massachusetts Medical Society's lawyers, and they concurred that it would be best from a legal standpoint to drop this section.... Needless to say, you would be free to submit a letter to the editor to protest this deletion." Kassirer added, "I have not sent a copy of your manuscript to any of the institutions named in your manuscript, and I will honor your request not to do so. We will, as you request, follow the normal practice of publishing the paper and then at a future time publish the responses along with your reply." If corrections and references are promptly supplied, he concluded, "we will have the lecture out before the end of the year."

The reported legal advice is puzzling, given that the Gallo controversies have long been on the public stage, including a Congressional hearing. In fact, virtually everything Dingell said about Gallo has previously appeared in print, as editor Kassirer noted in observing that "the case has been exhaustively covered in *Science*"—as well as, he might have added, in other publications.

In his bumbling venture into censorship, Kassirer has denied his readers the views of a Congressman with extensive power in biomedical affairs, and nourished Mr. Dingell's dark suspicions of establishment institutions.—DSG

To the Editor

[Re: "NIH Is Big Enough; Cap It, Start Another," SGR, Sept. 1] It might be more productive to cap the Bethesda program by closing its peripheral units, reducing the number of institutes (and thereby administrative overhead), and realigning the laboratory resources so that they're in the hands of the best and the brightest....

The problem with NIH is that it is always in the reactive mode vis-a-vis Congress and the Administration. Rather, it should be out front, determining what the future is likely to require in reference to research directions, and adjusting the administrative and organizational structure appropriately.... Unfortunately, this was not in the Strategic Plan I reviewed during a retreat a few months ago.

Then there is what I consider a big problem at NIH: the peer review system itself ... It is large, unwieldy, and protected by its staff in an unbelievable way.... Any attempt to change the peer review system, from inside or outside NIH, is immediately translated by staff into an attack on investigator research....

I don't believe [NIH Director] Bernadine Healy is either against basic research or in favor of managing basic research. However, I don't think she has been very clever about articulating this in the context of her Strategic Plan and has left herself open to this kind of criticism. Since no one likes the concept of strategic planning on a global basis, this leaves her very vulnerable.

The Women's Health Initiative ... is in my judgment mostly a political shell. It's hard to imagine that any significant answers will be attained the way the current study is designed, and yet $500 million is going into it....

Vincent T. DeVita Jr.
Memorial Sloan-Kettering Cancer Center, New York
Director, National Cancer Institute, 1980-88

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IN PRINT: Federal Labs, Pork Barrel, Drug Prices

The publications listed are obtainable as indicated—not from SGR.

Industry as a Customer of the Federal Laboratories (32 pp., $15), from the Council on Competitiveness, Washington-based consortium of high-tech industry and research universities, an unusually blunt, negative report on the government's progress in enlisting federal labs in the service of industry. Spread across the federal establishment, the labs consume about $20 billion a year, but the drive for conversion to industrial duty is mainly focused on the Pentagon and Energy dinosaurs spawned by the Cold War, plus the high-tech labs of NASA.

Though trumpeted by the Bush White House as one of its major achievements, technology transfer from federal labs to industry has been negligible, the report states, noting limited funds for the purpose, a consequent indifference on the part of lab directors and staff, and a maze of paperwork that chills industrial interest in collaboration. To overcome the barriers, the report recommends, NASA and DOE should earmark a startup $1 billion in lab funds for industrial service and localize authority for making deals. The report also urges the Pentagon, which is statutorily bound to conduct only military R&D, to loosen up and help civilian industry. "If after 3-5 years the labs have not made a significant contribution to America's industrial technology needs," the report states, "funds should be redirected to other organizations that are explicitly set up to accomplish this goal and have successful track records."

Singled out for approval in the Council report is the National Institute of Standards and Technology, praised for minimizing paperwork and smooth relations with industry, particularly in contrast to DOE, depicted in the report as a horror-show of bureaucratic lassitude. The report notes that NIST, "the only federal lab whose principal mission is to assist industry, accounts for less than one percent of the total federal lab budget."

Holding the title of Project Chairman for the report is former NSF Director Erich Bloch, a distinguished fellow of the Council on Competitiveness, and a caustic critic of Washington's post-Cold War R&D priorities.

Order from: Council on Competitiveness, 900 17th St. NW, Suite 1050, Washington, DC 20006; tel. 202/785-3900.

Trends in the Distribution of Apparent Earmarks in the Federal Government's FY 1980-92 Appropriations Bills (27 pp.) and ***The Distribution of Apparent Academic Earmarks in the Federal Government's FY 1992 Appropriations Bills*** (56 pp., both available without charge), by the Science Policy Research Division of the Congressional Research Service, the definitive accounting of earmarked, otherwise known as pork-barrel, science appropriations, compiled at the request of Chairman George Brown of the House Science, Space, and Technology Committee. The report says that the surreptitiously delivered appropriations started slowly, with only $11 million for hometown projects in 1980. But last year, the annual take reached $700 million. Brown contends that the earmarks actually benefit states that do well in open competition for funds for research and facilities. "Double-dippers," he calls them. Citing the data in the report, Brown persuaded the House on September 17 to put a hold on 10 earmarked projects, totaling $95 million, that House-Senate conferees had quietly slipped into the Energy and Water Appropriations bill. Brown's amendment, adopted by 250-104, retains the earmarked money in the bill, but specifies that it cannot be released until the projects are properly authorized and peer reviewed.

Order from: Science Policy Research Division, Congressional Research Service, Library of Congress, Madison Bldg., Washington, DC 20450; attn. Jean Knezo; tel. 202/707-6610.

Prescription Drugs: Changes in Prices for Selected Drugs (GAO/HRD-92-128; 70 pp., no charge), by the General Accounting Office, tracks wholesale price changes from 1985-91 for 29 widely prescribed pharmaceutical drugs. The GAO reports that most prices increased by at least 100 percent, and some by 200-300 percent, while the consumer price index (CPI) for all items rose 26 percent, the CPI for medical care, 56 percent, and the CPI for prescription drugs, 67 percent. Comments provided by manufacturers generally attributed the increases to the costs of research. Rep. Pete Stark, who requested the study, attributes the price increases to greed and gouging.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20877; tel. 202/275-6241.

Enabling the Future: Linking Science and Technology to Societal Goals (72 pp., no charge), one of the windier products in the lengthening list of science-related problems and nostrums issued by the Carnegie Commission on Science, Technology, and Government. Here, as in prior prescriptions, the Commission yearns to link existing organizations for further studies, convene meetings, and add to the capital's glut of unread reports. Says the report: "A nongovernmental National Forum on Science and Technology Goals should be established to facilitate the process of defining, debating, focusing, and articulating science and technology goals in the context of federal, national, and international goals, and to monitor the development and implementation of policies to achieve them." As homebase for this proposed superfluity, the Commission states its preference for the National Academy of Sciences, "because it has demonstrated, in recent years, striking flexibility and initiative in its organization and process." SGR suggestion: Better yet, go for broke and put it in the US Postal Service.

Order from: Carnegie Commission on Science, Technology, and Government, 10 Waverly Place, New York, NY 10003; tel. 212/998-2150.